NEWS

20-year global temperature passing iconic threshold

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The world's temperature has reached an average exceeding 1.0 °C above pre-industrial levels for the past two decades: the first time that a 20-year period has reached this threshold since records began in 1850.

The temperature data published by the WMO - in their provisional 2021 State of the Global Climate report - shows that the period 2002-2021 reached an average of 1.01°C ±0.12 °C. For context, the Paris Agreement aims to limit global warming to well below 2.0 °C, preferably to 1.5 °C.

A global cooling influence from La Niña – the cooler counterpart to El Niño in the tropical Pacific - is expected to keep 2021's final temperature value between the fifth to seventh warmest year since 1850. The last seven years 2015 to 2021 are on track to be the warmest seven-year period on record.

Professor Stephen Belcher, the Met Office Chief Scientist, said: "The observations show that the global temperature in 2021 is higher than average, in spite of the slight, short-term, natural cycle of cooling associated with the La Niña in the tropical Pacific Ocean.

"This year's provisional figure shows that the temperature trend remains upward. The fact that the 20-year average has reached more than 1.0 °C above pre-industrial levels will focus the minds of delegates at COP26 aspiring to keep global temperature rise to within the limits agreed in Paris six years ago."

The global mean temperature for 2021 (based on data from January to September) was about 1.08 C above the 1850-1900 average.

The Met Office is involved with the production of the WMO report. The Met Office's John Kennedy, the science coordinator of the report said: "While the global mean temperature is an important indicator of climate change, we need a much wider range of data to understand how climate change and variability are affecting the planet. Temperatures in the deep ocean, rising sea levels, ice on land and sea, along with other indicators in the report help to provide a fuller picture."

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